

# CONTUSIONS

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## ■ ■ ■ Description

A contusion is an injury to the skin and underlying tissues that is usually caused by a direct blow. This results in the bruising of the skin overlying the injured tissues. Contusions cause rupture and bleeding of the small capillaries and blood vessels that allow blood to infiltrate muscles, tendons, nerves, or other soft tissues.

## ■ ■ ■ Common Signs and Symptoms

- ?? Swelling and often a hard lump in the injured area, either superficial or deep
- ?? Pain and tenderness over the area of the contusion
- ?? Feeling of firmness when pressure is exerted over the contusion
- ?? Discoloration under the skin, beginning with redness and progressing to the characteristic “black and blue” bruise

## ■ ■ ■ Causes

Usually a direct blow, often by a blunt object.

## ■ ■ ■ Risk Increases With

- ?? Contact sports, especially football, boxing, ice hockey, soccer, field hockey, martial arts, basketball, and baseball
- ?? Sports that make falling from a height likely, such as high-jumping, pole-vaulting, skating, or gymnastics
- ?? Any bleeding disorder (hemophilia) or taking medications that affect clotting (aspirin, nonsteroidal anti-inflammatory medications, warfarin [Coumadin])
- ?? Inadequate protection of exposed areas during contact sports

## ■ ■ ■ Preventive Measures

- ?? Maintain appropriate conditioning:
  - Joint and muscle flexibility
  - Strength and endurance
  - Coordination
- ?? Wear proper protective equipment and ensure a correct fit.

## ■ ■ ■ Expected Outcome

Contusions are usually curable, although healing time varies with the severity of injury and intake of medications that affect clotting. Contusions usually heal within 1 to 4 weeks.

## ■ ■ ■ Possible Complications

- ?? Damage to nearby nerves or blood vessels, causing numbness, coldness, or paleness
- ?? Compartment syndrome
- ?? Excessive bleeding into the soft tissues, leading to disability
- ?? Infiltrative-type bleeding, leading to the calcification and impaired function of the injured muscle (rare)
- ?? Prolonged healing time if usual activities are resumed too soon
- ?? Infection if the skin over the injury site is broken
- ?? Fracture of the bone underlying the contusion
- ?? Stiffness in the joint where the injured muscle crosses

## ■ ■ ■ General Treatment Considerations

The initial treatment for contusions involves rest for the injured area, application of ice to the area for 20 minutes every few hours, compression with an elastic bandage, and elevation of the injured area, if possible. As the pain subsides, the joint where the affected muscle crosses should be moved to prevent stiffness and the shortening (contracture) of the joint. These joint movements and stretches should be done as soon as pain permits. As pain continues to subside, strengthening of the affected muscles should also be performed. This may be done on your own or under the guidance of a physical therapist or athletic trainer.

Occasionally, extra padding over the area of contusion may be recommended before returning to sports, particularly if re-injury is likely.

## ■ ■ ■ Medication

- ?? Nonsteroidal anti-inflammatory medications, such as aspirin and ibuprofen, may be started 48 hours after the injury (do not take within 7 days before surgery). Other minor pain relievers, such as acetaminophen, are often recommended. Take these as directed by your physician. Contact your physician immediately if any bleeding, stomach upset, or signs of an allergic reaction occur.
- ?? Stronger pain relievers may be prescribed as necessary by your physician. Use only as directed and only as much as you need.

## ■ ■ ■ Heat and Cold

- ?? Cold is used to relieve pain and reduce inflammation for acute and chronic contusions. Cold should be applied for 10 to 15 minutes every 2 to 3 hours for inflammation and pain and immediately after any activity that aggravates your symptoms. Use ice packs or an ice massage.
- ?? Use heat before performing stretching and strengthening activities prescribed by your physician or physical therapist. Use a heat pack or a warm soak.

## ■ ■ ■ Notify a Physican If

- ?? Symptoms get worse or do not improve despite treatment in a few days
- ?? You have difficulty moving a joint
- ?? Any extremity becomes extremely painful, numb, pale, or cool (This is an emergency!)
- ?? Signs of infection (drainage from skin, headache, muscle aches, dizziness, fever, or general ill feeling) occur if skin was broken